

**SECTION 099723
CONCRETE AND MASONRY COATINGS**

PART 1 GENERAL**1.01 SUMMARY**

- A. Section Includes: Surface preparation and application of concrete and masonry wall coatings.
 - 1. Interior substrates:
 - a. Concrete Floors.

1.02 ACTION SUBMITTALS

- A. Product Data:
 - 1. For each type of product.
 - 2. Include preparation requirements and application instructions.
 - 3. Indicate VOC content.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Samples for Verification: For each type of coating system and each color of topcoat indicated.
 - 1. Submit samples on actual substrate material to be coated, 8 inches square.
 - 2. Apply coats on Samples in steps to show each coat required for system, including primers and block fillers as applicable.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: Use same designations indicated on Drawings and specified herein. Include color designations and product runs (batch numbers)

1.03 INFORMATIONAL SUBMITTALS

- A. Qualification data: For manufacturer and applicator.
- B. Material Certificates: For each cementitious coating, from manufacturer.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency or performed by a qualified testing agency, for each product formulation.

1.04 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same production run (batch number), that match products installed and that are packaged with the protective covering for storage and identified with labels describing contents.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Current certificate holder for compliance with Iso 9001.
- B. Applicator Qualifications: An entity that employs applicators and supervisors who are competent in techniques required by manufacturer for application of concrete and masonry coatings.
 - 1. Engage an applicator who employs workers for this Project who are trained or certified by coating manufacturer for application techniques required.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 35 deg F and not more than 110 degrees Fahrenheit (43.33 degrees Celsius), in accordance with manufacturer's written instructions.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.
 - 3. Protect materials from direct sunlight.

1.07 FIELD CONDITIONS

- A. Apply finishes only when temperature of surfaces to be finished and ambient air temperatures are between 45 and 95 deg F.
- B. Do not apply finishes when relative humidity exceeds 85 percent, at temperatures of less than 5 deg F above the dew point, or to damp or wet surfaces.
- C. Do not apply exterior finishes in snow, rain, fog, or mist.

1.08 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace traffic coating that falls in materials within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Adhesive or cohesive failures.
 - b. Abrasion or tearing failures.
 - c. Surface crazing or spalling.
 - d. Intrusion of water, oils, gasoline, salt, deicer chemicals, or acids into deck substrate.
 - 2. Warranty period: One Year from date of Substantial Completion.

PART 2 PRODUCTS**2.01 MANUFACTURERS**

- A. Basis-of-Design Interior Product: Subject to compliance with requirements, provide Euclide Super Diamond Clear; Basecoat and Topcoat System or comparable product by one of the following:
 - 1. Euclid Chemical.

2.02 CONCRETE AND MASONRY COATINGS

- A. Material Compatibility:
 - 1. Use materials appropriate for use with coating system that are compatible with one another and with substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. Recommended coating system products in writing for each coat and topcoat manufacturer for use in coating system and on substrate indicated.
- B. VOC Content: For field applications that are inside the weatherproofing system, parts and coatings shall comply with VOC content limits of authorities having jurisdiction and the following VOC content limits:
 - 1. Flat paints and Coatings: 50 g/l
 - 2. Non flat Paints and Coatings: 150 g/l.
 - 3. Primers, Sealers, and Undercoaters: 200 g/l.
- C. Crack Fillers: Coating manufacturer's recommended, factory-formulated, alkali-resistant primer compatible with substrate and other materials indicated.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility.
- C. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Comply with manufacturer's written instructions applicable to substrates and coating systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted.
 - 1. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 2. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed.
 - 3. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of coatings, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk.
 - 1. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in coating manufacturer's written instructions.
- E. Crack Repair: Fill cracks in accordance with coating manufacturer's written instructions before coating surfaces.
 - 1. Cracks Larger Than 1/32 inch (0.79 mm): Cut out static cracks, voids, or honeycombing larger than 1/32 inch and patch with materials recommended in writing by coating manufacturer. Identify dynamic cracks and treat in accordance with coating manufacturer's written instructions before beginning application.

3.03 APPLICATION

- A. Apply coatings in accordance with manufacturer's written instructions.
 - 1. Use applicators and techniques suited for coating and substrate indicated. Apply additional coats until cured film has a uniform coating finish, color, and appearance. Allow each coat to dry completely between coats when applying multiple coats.
 - 2. Coat surfaces behind movable equipment and furniture same as for similar exposed surfaces.
 - 3. Coat backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not apply coatings over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat of multiple coats of same material are to be applied. Tint undercoats similar to color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If under coats or other conditions show through topcoat, apply additional coats until cured film has a uniform finish, color, and appearance.
- D. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.
- E. Apply coatings to prepared surfaces as soon as practicable after preparation and before subsequent surface soiling or deterioration.
- F. Brush Application: Brush out and work brush coats onto surfaces in an even film, filling all pores and voids at rate recommended in writing by coating manufacturer to achieve cured material thickness indicated. Finish coat with smooth, horizontal strokes.
- G. Spray Application: Spray apply coats onto surfaces in an even film, filling all pores and voids at rate recommended in writing by coating manufacturer to achieve cured material thickness indicated.

3.04 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test coatings for dry film thickness.
 - 1. Contractor shall touch up and restore coated surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied coating does not comply with coating manufacturer's written instructions, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with coating manufacturer's written instructions.

3.05 CLEANING AND PROTECTION

- A. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- B. Protect work of other trades against damage from coating operation until 48 hours after application. Correct damage to work of other trades by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an un-damaged condition.
- C. At completion of construction activities of other trades, touch up and restore damaged or detached coated surfaces.

3.06 CONCRETE AND MASONRY COATING SCHEDULE

- A. Concrete Coating System:
 - 1. Interior Coating System:
 - a. Base Coat: as recommended in writing by topcoat manufacturer.
 - b. Topcoat: Elastomeric, pigmented, water-based coating.
 - 1) Euclid Super Diamond Clear.

END OF SECTION